(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau





### (43) International Publication Date 7 April 2005 (07.04.2005)

### **PCT**

## (10) International Publication Number WO 2005/031691 A1

(51) International Patent Classification7:

G09G 3/34

(21) International Application Number:

PCT/IB2004/051856

(22) International Filing Date:

24 September 2004 (24.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/506.888

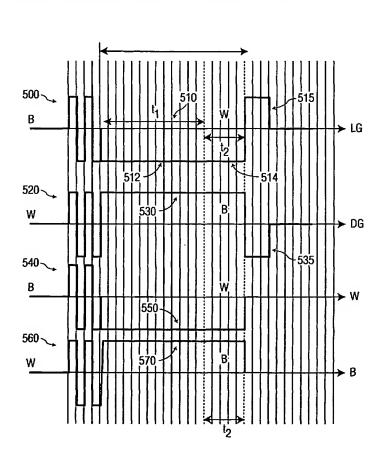
29 September 2003 (29.09.2003) US

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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

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(54) Title: DRIVING SCHEME FOR MONOCHROME MODE AND TRANSITION METHOD FOR MONOCHROME-TO-GREYSCALE MODE IN BI-STABLE DISPLAYS



(57) Abstract: Image quality is improved when updating a display image (310) in a bi-stable electronic reading device (300, 400) such as one using an electrophoretic display, by providing both monochrome and greyscale images. When an update mode of a pixel (2) of the display changes from a monochrome to greyscale, a compensating pulse (805, 825, 845, 865) is applied. The compensating pulse represents an energy based on the energy difference between: (a) an over-reset pulse (815, 835, 855, 875) used during the greyscale update mode and (b) a standard reset pulse (610, 660) used during the monochrome update mode. Also, a monochrome update waveform (600, 650) includes a standard reset pulse (610, 660) whose duration is substantially less than a duration of an over-reset pulse (815, 835, 855, 875) used in a greyscale update waveform (800, 820, 840 and 860). The monochrome update mode is used in combination with the greyscale update mode when possible.

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- PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### **Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

- MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

### Published:

with international search report

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